Texas Commission on Environmental Quality
Nonpoint Source Program

## *Development of the Lower Laguna Madre and Brownsville Ship Channel WPP*

Water Body	Lower Laguna Madre Watershed
Location	Cameron County
River Basin	Nueces-Rio Grande Coastal Basin (22)
Contractor	University of Texas Rio Grande Valley (UTRGV)
Project Period	September 1, 2017 – August 31, 2020
Project Total	$333,333 (Federal 60% and Local Match 40%)

Background

The Lower Laguna Madre Watershed is between the watersheds of the Arroyo Colorado and Rio Grande Rivers. The watershed includes the City of Brownsville and numerous townships in the surrounding area. Most of the watershed drains to the Brownsville Ship Channel and then to the Lower Laguna Madre. A watershed Partnership and associated Steering Committee was formed in 2016 to address water quality issues. The Steering Committee decided to pursue a Watershed Protection Plan (WPP) and further characterization of the watershed. Phase I of the watershed characterization started in 2014 and is scheduled to be completed in August of 2018. It has focused on gathering existing data and collecting new data in order to fill data gaps so stakeholders can make informed decisions. Monitoring samples have been collected every other month at three sites in the eastern portion of the watershed since November 2016. In addition, two new sites in the western portion of the Ship Channel will be sampled from September 2017 – August 2018.

WPP Development

UTRGV will identify any potential data gaps in the initial watershed characterization and collect the missing information in order to complete a watershed characterization. Drainage patterns in the watershed and subwatershed will be finalized, and water quality samples and flow measurements will be collected from the main tributaries draining to the Brownsville Ship Channel at a minimum of three sites. Once sufficient data has been gathered and collected, a model will be developed to simulate existing and future pollutant loadings by subwatershed to the Ship Channel and the Lower Laguna Madre. The model will identify sources of pollutant loadings, quantify load reductions needed, and prioritize watershed management practices to reduce instream pollutant concentrations. Stakeholder input and involvement will be utilized in developing this plan, and to facilitate this a Watershed Coordinator will be assigned. A public education component will be used to cultivate
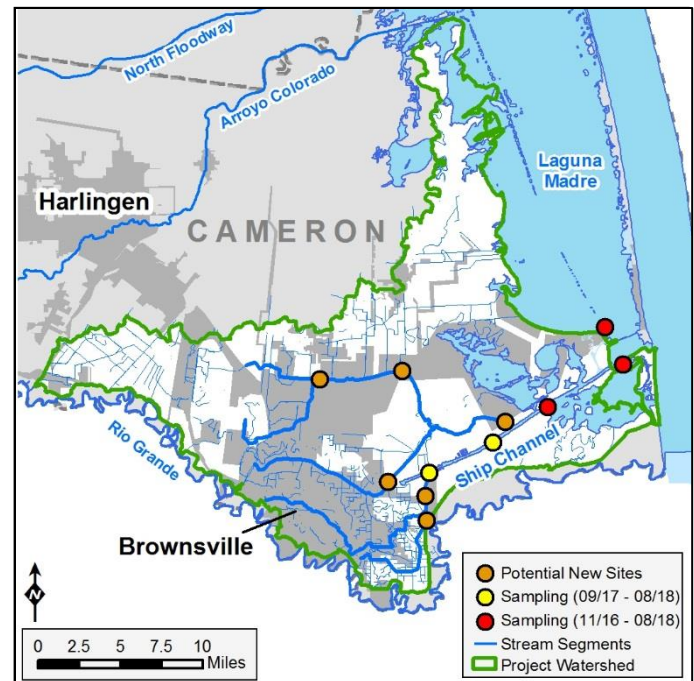
local support and participation in developing the WPP and types of best management practices (BMPs) that could be implemented in order to reduce pollutant loadings. This includes workshops, forums, and symposiums about WPPs and workshops and programs about watersheds.

Current Status

New tributary sites for data collection will be selected and the Monitoring Quality Assurance Project Plan (QAPP) developed. Stakeholder meetings will begin again in October 2017. Further watershed characterization will begin once a Geospatial QAPP is executed.

Public Participation

The public will be involved in an education component to gain local support and participation in developing the WPP. Stakeholders will be involved through regular meetings that will provide information about the project, and also be given opportunities to provide information and recommendations for the Plan.

For More Information

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WPP Highlights

- 09/01/2017 – Project began. Post-award conference was held.